

ABSTRACT

STEERING OF MISSILES.

A beam-riding missile (10) has a freely rotating control portion (11) forming its nose and carrying a pair of fixed ailerons (13) and a pair of fixed elevators (14). Detecting means (not shown) gather information indicative of the location of the missile in the beam and steering logic circuitry (not shown) provides signals to a clutch (18) which interferes with the free rotation of the nose in such a way that the elevators are effective to maintain the chosen flight path.

The clutch can be electromagnetic, piezo-electric or function on the Johnson-Raebeck effect.

The combination of fixed control surfaces and steering by a single actuator leads to the possibility of useful reductions in the size, weight and complexity of the missile.

1096625